Jean-jacques Toulme

List of Publications by Year
in descending order

118 papers	4,534 citations	94433 37 h-index	114465 63 g-index
125 all docs	125 docs citations	125 times ranked	2836 citing authors

#	Article	IF	Citations
1	Anti-pesticide DNA aptamers fail to recognize their targets with asserted micromolar dissociation constants. Analytica Chimica Acta, 2021, 1159, 338382.	5.4	11
2	A malachite green light-up aptasensor for the detection of theophylline. Talanta, 2021, 232, 122417.	5.5	7
3	Engineering Light-Up Aptamers for the Detection of RNA Hairpins through Kissing Interaction. Analytical Chemistry, 2020, 92, 9113-9117.	6.5	7
4	Triggering nucleic acid nanostructure assembly by conditional kissing interactions. Nucleic Acids Research, 2018, 46, 1052-1058.	14.5	10
5	Aptamers in Bordeaux 2017: An exceptional â€œmillÃ©simeâ€• Biochimie, 2018, 145, 2-7.	2.6	2
6	Electrostatics Explains the Positionâ€Đependent Effect of Gâ‹…U Wobble Base Pairs on the Affinity of RNA Kissing Complexes. ChemPhysChem, 2017, 18, 2782-2790.	2.1	5
7	Ex Vivo and In Vivo Imaging and Biodistribution of Aptamers Targeting the Human Matrix MetalloProtease-9 in Melanomas. PLoS ONE, 2016, 11, e0149387.	2.5	43
8	A combinatorial approach to the repertoire of RNA kissing motifs; towards multiplex detection by switching hairpin aptamers. Nucleic Acids Research, 2016, 44, 4450-4459.	14.5	29
9	ELAKCA: Enzyme-Linked Aptamer Kissing Complex Assay as a Small Molecule Sensing Platform. Analytical Chemistry, 2016, 88, 2570-2575.	6.5	25
10	Aptamer selection by direct microfluidic recovery and surface plasmon resonance evaluation. Biosensors and Bioelectronics, 2016, 80, 418-425.	10.1	33
11	Nucleic acid aptamers. Methods, 2016, 97, 1-2.	3.8	3
12	Single-molecule observations of RNAâ€“RNA kissing interactions in a DNA nanostructure. Biomaterials Science, 2016, 4, 130-135.	5.4	22
13	An improved design of the kissing complex-based aptasensor for the detection of adenosine. Analytical and Bioanalytical Chemistry, 2015, 407, 6515-6524.	3.7	13
14	Aptamer-Mediated Nanoparticle Interactions: From Oligonucleotideâ€“Protein Complexes to SELEX Screens. Methods in Molecular Biology, 2015, 1297, 153-167.	0.9	0
15	Riboswitches Based on Kissing Complexes for the Detection of Small Ligands. Angewandte Chemie - International Edition, 2014, 53, 6942-6945.	13.8	43
16	Aptamers: Analytical Tools for Viral Components. , 2013, , 425-442.		0
17	Encapsidation of RNAâ€“Polyelectrolyte Complexes with Amphiphilic Block Copolymers: Toward a New Self-Assembly Route. Journal of the American Chemical Society, 2012, 134, 20189-20196.	13.7	29
18	Advances in binder identification and characterisation: the case of oligonucleotide aptamers. New Biotechnology, 2012, 29, 550-554.	4.4	3

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19	Oligonucleotide solid-phase synthesis on fluorescent nanoparticles grafted on controlled pore glass. RSC Advances, 2012, 2, 11858.	3.6	8
20	^{99m}Tc-MAG3-Aptamer for Imaging Human Tumors Associated with High Level of Matrix Metalloprotease-9. Bioconjugate Chemistry, 2012, 23, 2192-2200.	3.6	39
21	Inhibition of Pre-mRNA Splicing by a Synthetic Blom7Î±-Interacting Small RNA. PLoS ONE, 2012, 7, e47497.	2.5	1
22	Deciphering Aromatic Oligoamide Foldamerâ€"DNA Interactions. Angewandte Chemie - International Edition, 2012, 51, 473-477.	13.8	39
23	Nucleic acids targeted to drugs: SELEX against a quadruplex ligand. Biochimie, 2011, 93, 1357-1367.	2.6	36
24	Surface Plasmon Resonance Investigation of RNA Aptamerâ€"RNA Ligand Interactions. Methods in Molecular Biology, 2011, 764, 279-300.	0.9	25
25	HAPIscreen, a method for high-throughput aptamer identification. Journal of Nanobiotechnology, 2011, 9, 25.	9.1	23
26	Aptamers as imaging agents. Expert Opinion on Medical Diagnostics, 2010, 4, 511-518.	1.6	12
27	In Vitro Selection of RNA Aptamers Derived from a Genomic Human Library against the TAR RNA Element of HIV-1. Biochemistry, 2009, 48, 6278-6284.	2.5	30
28	Aptamers: a new class of oligonucleotides in the drug discovery pipeline?. Current Opinion in Pharmacology, 2009, 9, 602-607.	3.5	72
29	Aptamers Targeting RNA Molecules. Methods in Molecular Biology, 2009, 535, 79-105.	0.9	17
30	Liquid-crystal NMR structure of HIV TAR RNA bound to its SELEX RNA aptamer reveals the origins of the high stability of the complex. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 9210-9215.	7.1	44
31	A functional selection of viral genetic elements in cultured cells to identify hepatitis C virus RNA translation inhibitors. Nucleic Acids Research, 2008, 36, e95-e95.	14.5	2
32	Comparative Studies of Tricyclo-DNA- and LNA-Containing Oligonucleotides as Inhibitors of HIV-1 Gene Expression. Nucleosides, Nucleotides and Nucleic Acids, 2007, 26, 747-750.	1.1	5
33	NMR structure of a kissing complex formed between the TAR RNA element of HIV-1 and a LNA-modified aptamer. Nucleic Acids Research, 2007, 35, 6103-6114.	14.5	27
34	LNA derivatives of a kissing aptamer targeted to the trans-activating responsive RNA element of HIV-1. Blood Cells, Molecules, and Diseases, 2007, 38, 204-209.	1.4	36
35	Systematic screening of LNA/2â€²-O-methyl chimeric derivatives of a TAR RNA aptamer. FEBS Letters, 2007, 581, 771-774.	2.8	37
36	Tricyclo-DNA Containing Oligonucleotides as Steric Block Inhibitors of Human Immunodeficiency Virus Type 1 Tat-Dependent Trans-Activation and HIV-1 Infectivity. Oligonucleotides, 2007, 17, 54-65.	2.7	20

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37	Aptamers to Nucleic Acid Structures. , 2006, , 167-190.		4
38	SELEX and dynamic combinatorial chemistry interplay for the selection of conjugated RNA aptamers. Organic and Biomolecular Chemistry, 2006, 4, 4082.	2.8	50
39	Aptamers Targeted to an RNA Hairpin Show Improved Specificity Compared to that of Complementary Oligonucleotidesâ€. Biochemistry, 2006, 45, 12076-12082.	2.5	59
40	Bimodal Loopâ˘'Loop Interactions Increase the Affinity of RNA Aptamers for HIV-1 RNA Structuresâ€. Biochemistry, 2006, 45, 1518-1524.	2.5	23
41	Anti-HIV Activity of Steric Block Oligonucleotides. Annals of the New York Academy of Sciences, 2006, 1082, 103-115.	3.8	7
42	Endogenous Expression of an Anti-TAR Aptamer Reduces HIV-1 Replication. RNA Biology, 2006, 3, 150-156.	3.1	44
43	In Vitro Selection Procedures for Identifying DNA and RNA Aptamers Targeted to Nucleic Acids and Proteins. , 2005, 288, 391-410.		14
44	Hexitol Nucleic Acid-Containing Aptamers Are Efficient Ligands of HIV-1 TAR RNAâ€. Biochemistry, 2005, 44, 2926-2933.	2.5	38
45	Use of Dynamic Combinatorial Chemistry for the Identification of Covalently Appended Residues that Stabilize Oligonucleotide Complexes. Angewandte Chemie - International Edition, 2004, 43, 3144-3147.	13.8	52
46	LNA/DNA chimeric oligomers mimic RNA aptamers targeted to the TAR RNA element of HIV-1. Nucleic Acids Research, 2004, 32, 3101-3107.	14.5	85
47	Regulating eukaryotic gene expression with aptamers. FEBS Letters, 2004, 567, 55-62.	2.8	27
48	Determinants of apical loopâ€"internal loop RNAâ€"RNA interactions involving the HCV IRES. Biochemical and Biophysical Research Communications, 2004, 322, 820-826.	2.1	38
49	Modulating viral gene expression by aptamers to RNA structures. Biology of the Cell, 2003, 95, 229-238.	2.0	26
50	Molecular dynamics reveals the stabilizing role of loop closing residues in kissing interactions: comparison between TAR-TAR* and TAR-aptamer. Nucleic Acids Research, 2003, 31, 4275-4284.	14.5	49
51	Selective inhibitory DNA aptamers of the human RNase H1. Nucleic Acids Research, 2003, 31, 5776-5788.	14.5	69
52	Antisense oligonucleotides targeted to the domain IIId of the hepatitis C virus IRES compete with 40S ribosomal subunit binding and prevent in vitro translation. Nucleic Acids Research, 2003, 31, 734-742.	14.5	51
53	In Vitro Selection of DNA Aptamers Against the HIV-1 TAR RNA Hairpin. Oligonucleotides, 2002, 12, 265-274.	4.3	22
54	Loop-loop interaction of HIV-1 TAR RNA with N3' -> P5' deoxyphosphoramidate aptamers inhibits in vitro Tat-mediated transcription. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 9709-9714.	7.1	54

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55	2â€˜-O-Methyl-RNA Hairpins Generate Loopâ˘'Loop Complexes and Selectively Inhibit HIV-1 Tat-Mediated Transcription. Biochemistry, 2002, 41, 12186-12192.	2.5	50
56	Apical Loopâ˘'Internal Loop Interactions:Â A New RNAâ˘'RNA Recognition Motif Identified through in Vitro Selection against RNA Hairpins of the Hepatitis C Virus mRNAâ€. Biochemistry, 2002, 41, 5883-5893.	2.5	71
57	DNA Aptamers Selected against the HIV-1 RNase H Display in Vitro Antiviral Activityâ€. Biochemistry, 2001, 40, 10087-10094.	2.5	99
58	RNA AND N3â€² â†' P5â€² KISSING APTAMERS TARGETED TO THETRANS-ACTIVATION RESPONSIVE (TAR) RNA OF THE HUMAN IMMUNODEFICIENCY VIRUS-1. Nucleosides, Nucleotides and Nucleic Acids, 2001, 20, 441-449.	1.1	17
59	New candidates for true antisense. Nature Biotechnology, 2001, 19, 17-18.	17.5	36
60	Gel Renaturation Assay for Ribonucleases. Methods in Enzymology, 2001, 341, 113-125.	1.0	0
61	A Method to Select Chemically Modified Aptamers Directly. Oligonucleotides, 2001, 11, 379-385.	4.3	11
62	Use of the Fluorescent Nucleoside Analogue Benzo[g]quinazoline 2â€²-O-Methyl--D-ribofuranoside to Monitor the Binding of the HIV-1 Tat Protein or of Antisense Oligonucleotides to the TAR RNA Stem-Loop. Helvetica Chimica Acta, 2000, 83, 1424-1436.	1.6	26
63	Towards the selection of phosphorothioate aptamers. FEBS Journal, 2000, 267, 5032-5040.	0.2	48
64	Comparative Analysis of Translation Efficiencies of Hepatitis C Virus 5â€² Untranslated Regions among Intraindividual Quasispecies Present in Chronic Infection: Opposite Behaviors Depending on Cell Type. Journal of Virology, 2000, 74, 10827-10833.	3.4	68
65	Is a Closing â€œGA Pairâ€• a Rule for Stable Loop-Loop RNA Complexes?. Journal of Biological Chemistry, 2000, 275, 21287-21294.	3.4	83
66	Eukaryotic ribonucleases HI and HII generate characteristic hydrolytic patterns on DNA-RNA hybrids: further evidence that mitochondrial RNase H is an RNase HII. Nucleic Acids Research, 2000, 28, 3674-3683.	14.5	19
67	In vitro selection identifies key determinants for loopâ€"loop interactions: RNA aptamers selective for the TAR RNA element of HIV-1. Rna, 1999, 5, 1605-1614.	3.5	114
68	Antisense Oligonucleotides Containing Modified Bases Inhibit in Vitro Translation of Leishmania amazonensis mRNAs by Invading the Mini-exon Hairpin. Journal of Biological Chemistry, 1999, 274, 8191-8198.	3.4	27
69	DNA Aptamers Selected Against the HIV-1trans-Activation-responsive RNA Element Form RNA-DNA Kissing Complexes. Journal of Biological Chemistry, 1999, 274, 12730-12737.	3.4	103
70	Antisense Effects of Oligonucleotides Complementary to the Hairpin of theLeishmaniaMini-exon RNA. Nucleosides & Nucleotides, 1999, 18, 1701-1704.	0.5	4
71	Binding of oligopyrimidines to the RNA hairpin responsible for the ribosomegag-polframeshift in HIV-1. FEBS Letters, 1999, 449, 169-174.	2.8	17
72	Understanding the Translation Regulatory Mechanisms to Improve the Efficiency and the Specificity of Protein Production by the Cell Factory. Cell Engineering, 1999, , 1-37.	0.4	0

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73	Benzoquinazoline Derivatives as Substitutes for Thymine in Nucleic Acid Complexes. Use of Fluorescence Emission of Benzo[g]quinazoline-2,4-(1H,3H)-dione in Probing Duplex and Triplex Formation. Biochemistry, 1998, 37, 13765-13775.	2.5	64
74	Mapping of a Minimal AU-rich Sequence Required for Lipopolysaccharide-induced Binding of a 55-kDa Protein on Tumor Necrosis Factor-Î± mRNA. Journal of Biological Chemistry, 1998, 273, 13781-13786.	3.4	38
75	A Fluorescent Base Analog for Probing Triple Helix Formation. Oligonucleotides, 1998, 8, 469-476.	4.3	12
76	Modified (PNA, 2'-O-methyl and phosphoramidate) anti-TAR antisense oligonucleotides as strong and specific inhibitors of in vitro HIV-1 reverse transcription. Nucleic Acids Research, 1998, 26, 5492-5500.	14.5	69
77	Identification of Aptamers Against the DNA Template for In Vitro Transcription of the HIV-1 TAR Element. Oligonucleotides, 1997, 7, 369-380.	4.3	14
78	Double Hairpin Complexes Allow Accommodation of All Four Base Pairs in Triple Helices Containing Both DNA and RNA Strands. Journal of Biological Chemistry, 1996, 271, 24187-24192.	3.4	14
79	Improved leishmanicidal effect of phosphorotioate antisense oligonucleotides by LDL-mediated delivery. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 1995, 1264, 229-237.	2.4	22
80	Antisense 2â€²-O-alkyl oligoribonucleotides are efficient inhibitors of reverse transcription. Nucleic Acids Research, 1995, 23, 64-71.	14.5	27
81	RNase H is responsible for the non-specific inhibition ofin vitrotranslation by 2â€²-O-alkyl chimeric oligonucleotides: high affinity or selectivity, a dilemma to design antisense oligomers. Nucleic Acids Research, 1995, 23, 3434-3440.	14.5	44
82	Chimeric alpha-beta oligonucleotides as antisense inhibitors of reverse transcription. FEBS Letters, 1995, 361, 41-45.	2.8	19
83	Purification and characterization of human ribonuclease HII. Nucleic Acids Research, 1994, 22, 5247-5254.	14.5	45
84	Relative contribution of photo-addition, helper oligonucleotide and RNase H to the antisense effect of psoralen-oligonucleotide conjugates, on in vitro translation of Leishmania mRNAs. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 1994, 1219, 98-106.	2.4	9
85	A phosphorothioate oligonucleotide blocks reverse transcription via an antisense mechanism. FEBS Letters, 1994, 340, 236-240.	2.8	18
86	A DNA hairpin as a target for antisense oligonucleotides. Journal of the American Chemical Society, 1993, 115, 796-797.	13.7	40
87	Ribonuclease H-mediated inhibition of translation and reverse transcription by antisense oligodeoxynucleotides. Biochemical Society Transactions, 1992, 20, 764-767.	3.4	8
88	RNase H-mediated inhibition of translation by antisense oligodeoxyribo-nucleotides: use of backbone modification to improve specificity. Gene, 1992, 121, 189-194.	2.2	62
89	Effect of the terminal phosphate derivatization of Î²- and Î±-oligodeoxynucleotides on their antisense activity in protein biosynthesis, stability and uptake by eucaryotic cells. Biochimie, 1992, 74, 485-489.	2.6	28
90	Modified oligonucleotides in rabbit reticulocytes: uptake, stability and antisense properties. Biochimie, 1991, 73, 1403-1408.	2.6	20

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91	Inhibition of translation initiation by antisense oligonucleotides via an RNase-H independent mechanism. Nucleic Acids Research, 1991, 19, 1113-1119.	14.5	136
92	Effect of RNA secondary structure and modified bases on the inhibition of trypanosomatid protein synthesis in cellfree extracts by antisense oligodeoxynucleotides. Nucleic Acids Research, 1990, 18, 4711-4717.	14.5	28
93	Blockage of AM V reverse transcriptase by antisense oligodeoxynucleotides. FEBS Letters, 1990, 274, 53-56.	2.8	7
94	Specific regulation of gene expression by antisense, sense and antigene nucleic acids. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 1990, 1049, 99-125.	2.4	709
95	Control of Gene Expression by Oligodeoxynucleotides Covalently Linked to Intercalating Agents and Nucleic Acid-cleaving Reagents. , 1989, , 137-172.		23
96	Enzymatic amplification of translation inhibition of rabbit Î²-globin mRNA mediated by anti-messenger oligodeoxynucleotides covalently linked to intercalating agents. Nucleic Acids Research, 1987, 15, 4717-4736.	14.5	171
97	Single-strand binding proteins from phage T4 and E. coli form higher order structures with poly(dT). Biochimie, 1986, 68, 1129-1134.	2.6	5
98	Anti-messenger oligodeoxynucleotides: specific inhibition of rabbit Î²-globin synthesis in wheat germ extracts and Xenopus oocytes. Biochimie, 1986, 68, 1063-1069.	2.6	55
99	The common 5â€² terminal sequence on trypanosome mRNAs: a target for anti-messenger oligodeoxynucleotides. Nucleic Acids Research, 1986, 14, 5605-5614.	14.5	94
100	Recognition of damaged regions in DNA by oligopeptides and proteins. Biochimie, 1985, 67, 301-307.	2.6	7
101	Specific recognition by the tripeptide lysyl-tryptophyl-Î±-lysine of structural damage induced in DNA by platinum derivatives. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 1985, 825, 353-359.	2.4	2
102	Stacking Interactions: The Key Mechanism for Binding of Proteins to Single-Stranded Regions of Native and Damaged Nucleic Acids?. , 1985, , 263-286.		0
103	Role of tryptophyl residues in the binding of gene 32 protein from phage T4 to single-stranded DNA. Photochemical modification of tryptophan by trichloroethanol. Biochemistry, 1984, 23, 1195-1201.	2.5	17
104	Role of tryptophan and cysteine in the binding of gene 32 protein from phage T4 to single-stranded DNA. Modification of crucial residues by oxidation with selective free-radical anions. Biochemistry, 1984, 23, 1208-1213.	2.5	13
105	Involvement of tryptophyl residues in the binding of model peptides and gene 32 protein from phage T4 to single-stranded polynucleotides. A spectroscopic method for detection of tryptophan in the vicinity of nucleic acid bases. Biochemistry, 1984, 23, 1202-1207.	2.5	15
106	Interaction of a tryptophan-containing peptide with chromatin core particles. FEBS Letters, 1984, 169, 205-209.	2.8	3
107	Absorption and fluorescence studies of the binding of the recA gene product from E. coli to single-stranded and double-stranded DNA. Ionic strength dependence. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 1984, 781, 7-13.	2.4	28
108	Structure and Dynamics of Peptide-Nucleic Acid Complexes.. , 1983, , 113-128.		3

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109	The recA Gene Product from E. coli. Binding to Single-Stranded and Double-Stranded DNA. Jerusalem Symposia on Quantum Chemistry and Biochemistry, 1983, , 295-304.	0.2	0
110	Mechanisms for the recognition of chemically-modified DNA by peptides and proteins. Biochimie, 1982, 64, 697-705.	2.6	19
111	Recognition of natural and chemically-damaged nucleic acids by peptides and proteins. , 1982, , 229-285.		14
112	A tryptophan-containing peptide recognizes and cleaves DNA at apurinic sites. Nature, 1981, 292, 858-859.	27.8	119
113	Stacking Interactions in Oligopeptide-Nucleic Acid Complexes. Jerusalem Symposia on Quantum Chemistry and Biochemistry, 1981, , 317-330.	0.2	3
114	The binding of T4 gene 32 protein to MS2 virus RNA and transfer RNA. Nucleic Acids Research, 1980, 8, 1357-1372.	14.5	4
115	Fluorescence study of the association between gene 32 protein of bacteriophage T4 and . Evidence for energy transfer. Nucleic Acids and Protein Synthesis, 1980, 606, 95-104.	1.7	34
116	A spectroscopic probe of stacking interactions between nucleic acid bases and tryptophan residues of proteins. Nucleic Acids Research, 1979, 7, 1945-1954.	14.5	21
117	Effect of phosphate ions on the fluorescence of tryptophan derivatives. Biochimie, 1979, 61, 957-960.	2.6	16
118	Stacking interactions between aromatic amino acids and adenine ring of ATP in zinc mediated ternary complexes. Bioinorganic Chemistry, 1978, 8, 319-329.	1.1	21